

WEST Search History

DATE: Thursday, May 20, 2004

Hide?	Set Name	Query	Hit Count
		<i>DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI; PLUR=YES; OP=ADJ</i>	
<input type="checkbox"/>	L3	L2 with (model or structure)	39
<input type="checkbox"/>	L2	AMYLASE NEAR5 (MUTA\$ or variant)	1344
		<i>DB=USPT; PLUR=YES; OP=ADJ</i>	
<input type="checkbox"/>	L1	5989169	3

END OF SEARCH HISTORY

Hit List

Search Results - Record(s) 1 through 10 of 39 returned.

☐ 1. Document ID: US 20040091900 A1

Using default format because multiple data bases are involved.

L3: Entry 1 of 39

File: PGPB

May 13, 2004

PGPUB-DOCUMENT-NUMBER: 20040091900
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20040091900 A1

TITLE: Materials and methods for providing plants with increased resistance to environmental stress

PUBLICATION-DATE: May 13, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Guy, Charles L.	Gainesville	FL	US	
Kaplan, Fatma	Gainesville	FL	US	
Sung, Dong Yul	San Diego	CA	US	

US-CL-CURRENT: 435/6; 800/284

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	Pub	Draw
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☐ 2. Document ID: US 20040048351 A1

L3: Entry 2 of 39

File: PGPB

Mar 11, 2004

PGPUB-DOCUMENT-NUMBER: 20040048351
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20040048351 A1

TITLE: Alpha-amylase mutants

PUBLICATION-DATE: March 11, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Svendsen, Allan	Birkerod		DK	
Borchert, Torben Vedel	Jyllinge		DK	
Bisgard-Frantzen, Henrik	Bagsvaerd		DK	

US-CL-CURRENT: 435/204; 510/226, 510/320

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Dg
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☐ 3. Document ID: US 20040038368 A1

L3: Entry 3 of 39

File: PGPB

Feb 26, 2004

PGPUB-DOCUMENT-NUMBER: 20040038368
 PGPUB-FILING-TYPE: new
 DOCUMENT-IDENTIFIER: US 20040038368 A1

TITLE: Alpha-amylase mutants

PUBLICATION-DATE: February 26, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Borchert, Torben Vedel	Copenhagen O		DK	
Svendsen, Allan	Birkerod		DK	
Andersen, Carsten	Vaerloese		DK	
Nielsen, Bjarne	Virum		DK	
Nissen, Torben Lauesgaard	Frederiksberg		DK	
Kjaerulff, Soren	Vanlose		DK	

US-CL-CURRENT: 435/202

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Dg
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☐ 4. Document ID: US 20030215928 A1

L3: Entry 4 of 39

File: PGPB

Nov 20, 2003

PGPUB-DOCUMENT-NUMBER: 20030215928
 PGPUB-FILING-TYPE: new
 DOCUMENT-IDENTIFIER: US 20030215928 A1

TITLE: Amylolytic enzyme variants

PUBLICATION-DATE: November 20, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Cherry, Joel Robert	Davis	CA	US	
Svendsen, Allan	Birkerod		DK	
Andersen, Carsten Denmark	Vaerloese		DK	
Beier, Lars	Lyngby		DK	
Frandsen, Torben Peter	Frederiksberg C		DK	
Schafer, Thomas	Farum		DK	

US-CL-CURRENT: 435/97; 435/193, 435/252.3, 435/252.31, 435/320.1, 435/69.1,
536/23.2

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	FIGS	Drawings
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☐ 5. Document ID: US 20030211958 A1

L3: Entry 5 of 39

File: PGPB

Nov 13, 2003

PGPUB-DOCUMENT-NUMBER: 20030211958
 PGPUB-FILING-TYPE: new
 DOCUMENT-IDENTIFIER: US 20030211958 A1

TITLE: Alpha-amylase mutants

PUBLICATION-DATE: November 13, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Svendsen, Allan	Birkerod		DK	
Borchert, Torben Vedel	Copenhagen		DK	
Bisgard-Frantzen, Henrik	Bagsvaerd		DK	
Outtrup, Helle	Ballerup		DK	
Nielsen, Bjarne Ronfeldt	Virum		DK	
Nielsen, Vibeke Skovgaard	Bagsvaerd		DK	
Hedegaard, Lisbeth	Skodsborg		DK	

US-CL-CURRENT: 510/226; 435/202, 435/320.1, 435/325, 435/69.1, 510/320, 536/23.2

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	FIGS	Drawings
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☐ 6. Document ID: US 20030207408 A1

L3: Entry 6 of 39

File: PGPB

Nov 6, 2003

PGPUB-DOCUMENT-NUMBER: 20030207408
 PGPUB-FILING-TYPE: new
 DOCUMENT-IDENTIFIER: US 20030207408 A1

TITLE: Amylolytic enzyme variants

PUBLICATION-DATE: November 6, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Cherry, Joel Robert	Davis	CA	US	
Svendsen, Allan	Birkerod		DK	
Andersen, Carsten	Vaerloese		DK	
Beier, Lars	Lyngby		DK	
Frandsen, Torben Peter	Frederiksberg C		DK	

Schafer, Thomas

Farum

DK

US-CL-CURRENT: 435/101; 426/20

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	IMC	Draw D
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☐ 7. Document ID: US 20030171236 A1

L3: Entry 7 of 39

File: PGPB

Sep 11, 2003

PGPUB-DOCUMENT-NUMBER: 20030171236

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030171236 A1

TITLE: ALPHA-AMYLASE MUTANTS

PUBLICATION-DATE: September 11, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Svendsen, Allan	Birkerod		DK	
Borchert, Torben Vedel	Jyllinge		DK	
Bisgard-Frantzen, Henrik	Bagsvaerd		DK	

US-CL-CURRENT: 510/305; 435/202, 510/226

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	IMC	Draw D
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☐ 8. Document ID: US 20030170769 A1

L3: Entry 8 of 39

File: PGPB

Sep 11, 2003

PGPUB-DOCUMENT-NUMBER: 20030170769

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030170769 A1

TITLE: Alpha-amylase mutants

PUBLICATION-DATE: September 11, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Svendsen, Allan	Birkerod		DK	
Bisgard-Frantzen, Henrik	Lyngby		DK	
Borchert, Torben Vedel	Copenhagen N		DK	

US-CL-CURRENT: 435/22; 435/201, 435/320.1, 435/325, 435/69.1

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	IMC	Draw D
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☐ 9. Document ID: US 20030129718 A1

L3: Entry 9 of 39

File: PGPB

Jul 10, 2003

PGPUB-DOCUMENT-NUMBER: 20030129718
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030129718 A1

TITLE: Amylase variants

PUBLICATION-DATE: July 10, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Andersen, Carsten	Vaerloese		DK	
Borchert, Torben Vedel	Birkerod		DK	
Nielsen, Bjarne Ronfeldt	Virum		DK	

US-CL-CURRENT: 435/183; 510/392

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWC	Draw D
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☐ 10. Document ID: US 20030059902 A1

L3: Entry 10 of 39

File: PGPB

Mar 27, 2003

PGPUB-DOCUMENT-NUMBER: 20030059902
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030059902 A1

TITLE: Amylolytic enzyme variants

PUBLICATION-DATE: March 27, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Cherry, Joel Robert	Davis	CA	US	
Svendsen, Allan	Birkerod		DK	
Andersen, Carsten Denmark	Vaerloese		DK	
Beier, Lars	Lyngby		DK	
Frandsen, Torben Peter	Frederiksberg C		DK	
Schafer, Thomas	Farum		DK	

US-CL-CURRENT: 435/101; 435/193, 435/202, 435/252.3, 435/320.1, 435/69.1, 536/23.2

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWC	Draw D
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Search Results - Record(s) 11 through 20 of 39 returned.

☐ 11. Document ID: US 20030044954 A1

Using default format because multiple data bases are involved.

L3: Entry 11 of 39

File: PGPB

Mar 6, 2003

PGPUB-DOCUMENT-NUMBER: 20030044954

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030044954 A1

TITLE: Alpha-amylase variants

PUBLICATION-DATE: March 6, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Andersen, Carsten	Vaerloose		DK	
Jorgensen, Christel Thea	Kobenhavn O		DK	
Bisgard-Frantzen, Henrik	Bagsvaerd		DK	
Svensen, Allan	Birkerod		DK	
Kjaerulff, Soren	Vanlose		DK	

US-CL-CURRENT: 435/202; 435/320.1, 435/325, 435/69.1, 536/23.2

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	RMK	Draw D
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☐ 12. Document ID: US 20020168737 A1

L3: Entry 12 of 39

File: PGPB

Nov 14, 2002

PGPUB-DOCUMENT-NUMBER: 20020168737

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020168737 A1

TITLE: Binding and catalysis screen for high throughput determination of protein function using chemical inducers of dimerization

PUBLICATION-DATE: November 14, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Cornish, Virginia W.	New York	NY	US	

US-CL-CURRENT: 435/188.5; 435/231

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KBAC	Draw D
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☐ 13. Document ID: US 20020168685 A1

L3: Entry 13 of 39

File: PGPB

Nov 14, 2002

PGPUB-DOCUMENT-NUMBER: 20020168685

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020168685 A1

TITLE: Covalent chemical inducers of protein dimerization and their uses in high throughput binding screens

PUBLICATION-DATE: November 14, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Cornish, Virginia W.	New York	NY	US	

US-CL-CURRENT: 435/7.1; 536/27.13, 536/28.53, 540/222, 544/259

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KBAC	Draw D
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☐ 14. Document ID: US 20020037824 A1

L3: Entry 14 of 39

File: PGPB

Mar 28, 2002

PGPUB-DOCUMENT-NUMBER: 20020037824

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020037824 A1

TITLE: Detergent compositions comprising a maltogenic alpha-amylase enzyme and a detergent ingredient

PUBLICATION-DATE: March 28, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Smets, Johan	Lubbeek		BE	
Pintens, An	Merksem		BE	

US-CL-CURRENT: 510/305; 510/306, 510/313, 510/392

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KBAC	Draw D
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☐ 15. Document ID: US 20010039253 A1

L3: Entry 15 of 39

File: PGPB

Nov 8, 2001

PGPUB-DOCUMENT-NUMBER: 20010039253
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20010039253 A1

TITLE: Alpha-amylase mutants

PUBLICATION-DATE: November 8, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Borchert, Torben Vedel	Copenhagen O		DK	
Svendsen, Allan	Birkerod		DK	
Andersen, Carsten	Vaerloese		DK	
Nielsen, Bjarne	Virum		DK	
Nissen, Torben Lauesgaard	Frederiksberg C		DK	
Kjarulff, Soren	Vanlose		DK	

US-CL-CURRENT: 510/392; 510/305, 510/306

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	K00C	Draw D
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☐ 16. Document ID: US 6642044 B2

L3: Entry 16 of 39

File: USPT

Nov 4, 2003

US-PAT-NO: 6642044
DOCUMENT-IDENTIFIER: US 6642044 B2

TITLE: .alpha.-amylase mutants

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	K00C	Draw D
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☐ 17. Document ID: US 6528298 B1

L3: Entry 17 of 39

File: USPT

Mar 4, 2003

US-PAT-NO: 6528298
DOCUMENT-IDENTIFIER: US 6528298 B1

TITLE: .alpha.-amylase mutants

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	K00C	Draw D
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☐ 18. Document ID: US 6482622 B1

L3: Entry 18 of 39

File: USPT

Nov 19, 2002

US-PAT-NO: 6482622

DOCUMENT-IDENTIFIER: US 6482622 B1

TITLE: Amylolytic enzyme variants

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KMOC	Draw De
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☐ 19. Document ID: US 6440716 B1

L3: Entry 19 of 39

File: USPT

Aug 27, 2002

US-PAT-NO: 6440716

DOCUMENT-IDENTIFIER: US 6440716 B1

TITLE: .alpha.-amylase mutants

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KMOC	Draw De
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☐ 20. Document ID: US 6436888 B1

L3: Entry 20 of 39

File: USPT

Aug 20, 2002

US-PAT-NO: 6436888

DOCUMENT-IDENTIFIER: US 6436888 B1

TITLE: .alpha.-amylase mutants

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KMOC	Draw De
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Clear	Generate Collection	Print	Fwd Refs	Bkwd Refs	Generate OACS
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Terms	Documents
L2 with (model or structure)	39

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Search Results - Record(s) 21 through 30 of 39 returned.

☐ 21. Document ID: US 6410295 B1

Using default format because multiple data bases are involved.

L3: Entry 21 of 39

File: USPT

Jun 25, 2002

US-PAT-NO: 6410295

DOCUMENT-IDENTIFIER: US 6410295 B1

TITLE: Alpha-amylase variants

DATE-ISSUED: June 25, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE ZIP CODE COUNTRY
Andersen; Carsten	Vaerl.o slashed.se	DK
J.o slashed.rgensen;	K .o slashed.benhavn .O	DK
Christel Thea	slashed.	
Bisg.ang.rd-Frantzen; Henrik	Bagsvaerd	DK
Svendsen; Allan	Birker.o slashed.d	DK
Kjaerulff; S.o slashed.ren	Vanl.o slashed.se	DK

US-CL-CURRENT: 435/202; 435/183, 435/200, 435/252.3, 435/320.1, 435/440

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	Know	Draw D
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☐ 22. Document ID: US 6361989 B1

L3: Entry 22 of 39

File: USPT

Mar 26, 2002

US-PAT-NO: 6361989

DOCUMENT-IDENTIFIER: US 6361989 B1

TITLE: .alpha.-amylase and .alpha.-amylase variants

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	Know	Draw D
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☐ 23. Document ID: US 6204232 B1

L3: Entry 23 of 39

File: USPT

Mar 20, 2001

US-PAT-NO: 6204232
DOCUMENT-IDENTIFIER: US 6204232 B1

TITLE: .alpha.-amylase mutants

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KWAC	Draw D
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☐ 24. Document ID: US 6197565 B1

L3: Entry 24 of 39

File: USPT

Mar 6, 2001

US-PAT-NO: 6197565
DOCUMENT-IDENTIFIER: US 6197565 B1

TITLE: .alpha.-Amylase variants

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KWAC	Draw D
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☐ 25. Document ID: US 6187576 B1

L3: Entry 25 of 39

File: USPT

Feb 13, 2001

US-PAT-NO: 6187576
DOCUMENT-IDENTIFIER: US 6187576 B1

TITLE: .alpha.-amylase mutants

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KWAC	Draw D
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☐ 26. Document ID: US 6162628 A

L3: Entry 26 of 39

File: USPT

Dec 19, 2000

US-PAT-NO: 6162628
DOCUMENT-IDENTIFIER: US 6162628 A

TITLE: Maltogenic alpha-amylase variants

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KWAC	Draw D
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☐ 27. Document ID: US 6143708 A

L3: Entry 27 of 39

File: USPT

Nov 7, 2000

US-PAT-NO: 6143708
DOCUMENT-IDENTIFIER: US 6143708 A

TITLE: .alpha.-amylase mutants

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KMOC	Draw D
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☐ 28. Document ID: US 6022724 A

L3: Entry 28 of 39

File: USPT

Feb 8, 2000

US-PAT-NO: 6022724

DOCUMENT-IDENTIFIER: US 6022724 A

TITLE: .alpha.-amylase mutants

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KMOC	Draw D
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☐ 29. Document ID: US 5989169 A

L3: Entry 29 of 39

File: USPT

Nov 23, 1999

US-PAT-NO: 5989169

DOCUMENT-IDENTIFIER: US 5989169 A

TITLE: .alpha.-amylase mutants

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KMOC	Draw D
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☐ 30. Document ID: US 5863784 A

L3: Entry 30 of 39

File: USPT

Jan 26, 1999

US-PAT-NO: 5863784

DOCUMENT-IDENTIFIER: US 5863784 A

TITLE: Recombinant .beta.-amylase

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KMOC	Draw D
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Search Results - Record(s) 31 through 39 of 39 returned.

☐ 31. Document ID: US 5849549 A

Using default format because multiple data bases are involved.

L3: Entry 31 of 39

File: USPT

Dec 15, 1998

US-PAT-NO: 5849549

DOCUMENT-IDENTIFIER: US 5849549 A

TITLE: Oxidatively stable alpha-amylase

DATE-ISSUED: December 15, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Barnett; Christopher C.	South San Francisco	CA		
Solheim; Leif P.	Clinton	IA		
Mitchinson; Colin	Half Moon Bay	CA		
Power; Scott D.	San Bruno	CA		
Requadt; Carol A.	Tiburon	CA		

US-CL-CURRENT: 435/99; 435/202, 536/23.2

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	FORM	Draw Ds
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☐ 32. Document ID: US 5830837 A

L3: Entry 32 of 39

File: USPT

Nov 3, 1998

US-PAT-NO: 5830837

DOCUMENT-IDENTIFIER: US 5830837 A

**** See image for Certificate of Correction ****

TITLE: Amylase variants

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	FORM	Draw Ds
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☐ 33. Document ID: US 5801043 A

L3: Entry 33 of 39

File: USPT

Sep 1, 1998

US-PAT-NO: 5801043

DOCUMENT-IDENTIFIER: US 5801043 A

**** See image for Certificate of Correction ****

TITLE: Amylase variants

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KWIC	Draw D
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☐ 34. Document ID: US 5753460 A

L3: Entry 34 of 39

File: USPT

May 19, 1998

US-PAT-NO: 5753460

DOCUMENT-IDENTIFIER: US 5753460 A

TITLE: Amylase variants

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KWIC	Draw D
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☐ 35. Document ID: US 5688684 A

L3: Entry 35 of 39

File: USPT

Nov 18, 1997

US-PAT-NO: 5688684

DOCUMENT-IDENTIFIER: US 5688684 A

TITLE: Recombinant .beta.-amylase

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KWIC	Draw D
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☐ 36. Document ID: WO 9943794 A1

L3: Entry 36 of 39

File: EPAB

Sep 2, 1999

PUB-NO: WO009943794A1

DOCUMENT-IDENTIFIER: WO 9943794 A1

TITLE: MALTOGENIC ALPHA-AMYLASE VARIANTS

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KWIC	Draw D
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☐ 37. Document ID: WO 9943793 A1

L3: Entry 37 of 39

File: EPAB

Sep 2, 1999

PUB-NO: WO009943793A1

DOCUMENT-IDENTIFIER: WO 9943793 A1

TITLE: AMYLOLYTIC ENZYME VARIANTS

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KWIC	Draw D
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☐ 38. Document ID: WO 9623874 A1

L3: Entry 38 of 39

File: EPAB

Aug 8, 1996

PUB-NO: WO009623874A1

DOCUMENT-IDENTIFIER: WO 9623874 A1

TITLE: A METHOD OF DESIGNING ALPHA-AMYLASE MUTANTS WITH PREDETERMINED PROPERTIES

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	FORM	Draw D
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☐ 39. Document ID: US 20040038368 A1, WO 9923211 A1, AU 9897373 A, EP 1027428 A1, BR 9813328 A, US 6204232 B1, CN 1278298 A, KR 2001031424 A, MX 2000004103 A1, US 20010039253 A1, JP 2001521739 W, US 6673589 B2

L3: Entry 39 of 39

File: DWPI

Feb 26, 2004

DERWENT-ACC-NO: 1999-326987

DERWENT-WEEK: 200416

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TITLE: New Termamyl-like alpha-amylase variants

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	FORM	Draw D
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Clear	Generate Collection	Print	Fwd Refs	Bkwd Refs	Generate OACS
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Terms	Documents
L2 with (model or structure)	39

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NEWS 4 JAN 27 A new search aid, the Company Name Thesaurus, available in
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NEWS 5 FEB 05 German (DE) application and patent publication number format
changes
NEWS 6 MAR 03 MEDLINE and LMEADLINE reloaded
NEWS 7 MAR 03 MEDLINE file segment of TOXCENTER reloaded
NEWS 8 MAR 03 FRANCEPAT now available on STN
NEWS 9 MAR 29 Pharmaceutical Substances (PS) now available on STN
NEWS 10 MAR 29 WPIFV now available on STN
NEWS 11 MAR 29 New monthly current-awareness alert (SDI) frequency in RAPRA
NEWS 12 APR 26 PROMT: New display field available
NEWS 13 APR 26 IFIPAT/IFIUDB/IFICDB: New super search and display field
available
NEWS 14 APR 26 LITALERT now available on STN
NEWS 15 APR 27 NLDB: New search and display fields available
NEWS 16 May 10 PROUSDDR now available on STN
NEWS 17 May 19 PROUSDDR: One FREE connect hour, per account, in both May
and June 2004
NEWS 18 May 12 EXTEND option available in structure searching
NEWS 19 May 12 Polymer links for the POLYLINK command completed in REGISTRY
NEWS 20 May 17 FRFULL now available on STN

NEWS EXPRESS MARCH 31 CURRENT WINDOWS VERSION IS V7.00A, CURRENT
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=> s amylase (5a)(muta? or variant)
10 FILES SEARCHED...
L1 2433 AMYLASE (5A)(MUTA? OR VARIANT)

=> s l1 (5a)(model or structure)
10 FILES SEARCHED...
L2 107 L1 (5A)(MODEL OR STRUCTURE)

=> dup rem l2
PROCESSING COMPLETED FOR L2
L3 37 DUP REM L2 (70 DUPLICATES REMOVED)

=> d 1-10

L3 ANSWER 1 OF 37 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2003:981541 HCAPLUS
DN 140:212945
TI Structural studies of a Phe256Trp mutant of human salivary
.alpha.-amylase: implications for the role of a conserved water molecule
in enzyme activity
AU Ramasubbu, Narayanan; Sundar, Krishnan; Ragunath, Chandran; Rafi, Mohamed
M.
CS New Jersey Dental School, Department of Oral Biology, University of
Medicine and Dentistry, Newark, NJ, 07103, USA
SO Archives of Biochemistry and Biophysics (2004), 421(1), 115-124
CODEN: ABBIA4; ISSN: 0003-9861
PB Elsevier Science
DT Journal
LA English
RE.CNT 52 THERE ARE 52 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 2 OF 37 MEDLINE on STN DUPLICATE 1
AN 2003221047 MEDLINE
DN PubMed ID: 12741813
TI Crystal ***structure*** of a catalytic site ***mutant*** of beta-
amylase from Bacillus cereus var. mycoides cocrystallized with
maltopentaose.
AU Miyake Hideo; Kurisu Genji; Kusunoki Masami; Nishimura Sigenori; Kitamura
Shinichi; Nitta Yasunori
CS Graduate School of Agriculture and Biological Sciences, Osaka Prefecture
University, Sakai, Osaka 599-8531, Japan.
SO Biochemistry, (2003 May 20) 42 (19) 5574-81.
Journal code: 0370623. ISSN: 0006-2960.
CY United States
DT Journal;Article; (JOURNAL ARTICLE)

LA English
FS Priority Journals
EM 200306
ED Entered STN: 20030514
Last Updated on STN: 20030621
Entered Medline: 20030620

L3 ANSWER 3 OF 37 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2003:535168 HCAPLUS
DN 139:242150
TI Mutual conversion of substrate specificities of *Thermoactinomyces vulgaris*
R-47 .alpha.-amylases TVAI and TVAI by site-directed mutagenesis
AU Ohtaki, Akashi; Iguchi, Akihiro; Mizuno, Masahiro; Tonozuka, Takashi;
Sakano, Yoshiyuki; Kamitori, Shigehiro
CS Faculty of Technology, Department of Biotechnology and Life Science, Tokyo
University of Agriculture and Technology, Koganei, Tokyo, 184-8588, Japan
SO Carbohydrate Research (2003), 338(15), 1553-1558
CODEN: CRBRAT; ISSN: 0008-6215
PB Elsevier Science Ltd.
DT Journal
LA English
RE.CNT 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 4 OF 37 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2003:983697 HCAPLUS
DN 140:334585
TI Change in the crystal packing of soybean .beta.-amylase mutants
substituted at a few surface amino acid residues
AU Kang, You-Na; Adachi, Motoyasu; Mikami, Bunzo; Utsumi, Shigeru
CS Graduate School of Agriculture, Laboratory of Food Quality Design and
Development, Kyoto University, Kyoto, 611-0011, Japan
SO Protein Engineering (2003), 16(11), 809-817
CODEN: PRENE9; ISSN: 0269-2139
PB Oxford University Press
DT Journal
LA English
RE.CNT 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 5 OF 37 MEDLINE on STN DUPLICATE 2
AN 2002688200 MEDLINE
DN PubMed ID: 12324460
TI Dual effects of an extra disulfide bond on the activity and stability of a
cold-adapted alpha-amylase.
AU D'Amico Salvino; Gerday Charles; Feller Georges
CS Laboratory of Biochemistry, Institute of Chemistry B6, University of
Liege, Liege 4000, Belgium.
SO Journal of biological chemistry, (2002 Nov 29) 277 (48) 46110-5.
Journal code: 2985121R. ISSN: 0021-9258.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 200301
ED Entered STN: 20021214
Last Updated on STN: 20030109
Entered Medline: 20030108

L3 ANSWER 6 OF 37 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2002:227995 HCAPLUS
DN 136:397815
TI Expression, purification and preliminary crystallographic studies of
.alpha.-amylase isozyme 1 from barley seeds
AU Robert, Xavier; Gottschalk, Tine E.; Haser, Richard; Svensson, Birte;
Aghajari, Nushin
CS Institut de Biologie et Chimie des Proteines, Laboratoire de
Bio-Cristallographie CNRS-UMR 5086, Lyon, 69367, Fr.
SO Acta Crystallographica, Section D: Biological Crystallography (2002),
D58(4), 683-686
CODEN: ABCRE6; ISSN: 0907-4449
PB Blackwell Munksgaard
DT Journal
LA English
RE.CNT 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 7 OF 37 HCAPLUS COPYRIGHT 2004 ACS on STN
 AN 2001:878298 HCAPLUS
 DN 136:130699
 TI Probing the Role of the Chloride Ion in the Mechanism of Human Pancreatic
 .alpha.-Amylase
 AU Numao, Shin; Maurus, Robert; Sidhu, Gary; Wang, Yili; Overall, Christopher
 M.; Brayer, Gary D.; Withers, Stephen G.
 CS Department of Chemistry, University of British Columbia, Vancouver, BC,
 V6T 1Z1, Can.
 SO Biochemistry (2002), 41(1), 215-225
 CODEN: BICHAW; ISSN: 0006-2960
 PB American Chemical Society
 DT Journal
 LA English
 RE.CNT 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 8 OF 37 HCAPLUS COPYRIGHT 2004 ACS on STN
 AN 2001:851352 HCAPLUS
 DN 136:2260
 TI .alpha.-Amylase variants with altered .alpha.-1,6-D-glucosidic branch
 linkage cleavage activity
 IN Svendsen, Allan; Jorgensen, Christel Thea; Nielsen, Bjarne Ronfeldt
 PA Novozymes A/S, Den.
 SO PCT Int. Appl., 84 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001088107	A2	20011122	WO 2001-DK323	20010510
	WO 2001088107	A3	20020627		
	W:		AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM		
	RW:		GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG		
	US 2002068352	A1	20020606	US 2001-854346	20010511
PRAI	DK 2000-779	A	20000512		
	US 2000-205229P	P	20000517		

L3 ANSWER 9 OF 37 HCAPLUS COPYRIGHT 2004 ACS on STN
 AN 2001:676914 HCAPLUS
 DN 135:238614
 TI Tertiary ***structure*** modeling of Bacillus .alpha.- ***amylases***
 and construction of ***variants*** with altered solubility and related
 enzymic properties
 IN Andersen, Carsten; Borchert, Torben Vedel; Nielsen, Bjarne Ronfeldt
 PA Novozymes A/S, Den.
 SO PCT Int. Appl., 152 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001066712	A2	20010913	WO 2001-DK144	20010307
	WO 2001066712	A3	20020418		
	W:		AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM		
	RW:		GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG		
	EP 1263942	A2	20021211	EP 2001-911458	20010307
	R:		AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR		

	JP 2004505606	T2	20040226	JP 2001-565869	20010307
	US 2003129718	A1	20030710	US 2001-925576	20010809
PRAI	DK 2000-376	A	20000308		
	US 2000-189857P	P	20000315		
	DK 2001-303	A	20010223		
	US 2001-271382P	P	20010226		
	WO 2001-DK144	W	20010307		

L3 ANSWER 10 OF 37 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
 DUPLICATE 3
 AN 2001:290095 BIOSIS
 DN PREV200100290095
 TI Structures of Thermoactinomyces vulgaris R-47 alpha-amylase II complexed
 with substrate analogues.
 AU Yokota, Takehiro; Tonozuka, Takashi; Shimura, Yoichiro; Ichikawa,
 Kazuhiro; Kamitori, Shigehiro; Sakano, Yoshiyuki [Reprint author]
 CS Department of Applied Biological Science, Tokyo University of Agriculture
 and Technology, 3-5-8 Saiwai-cho, Fuchu-shi, Tokyo, 183-8509, Japan
 sakano@cc.tuat.ac.jp
 SO Bioscience Biotechnology and Biochemistry, (March, 2001) Vol. 65, No. 3,
 pp. 619-626. print.
 ISSN: 0916-8451.
 DT Article
 LA English
 ED Entered STN: 20 Jun 2001
 Last updated on STN: 19 Feb 2002

=> d 11-20

L3 ANSWER 11 OF 37 HCAPLUS COPYRIGHT 2004 ACS on STN
 AN 2001:330098 HCAPLUS
 DN 135:57807
 TI Studies on the hydrolyzing mechanism for cyclodextrins of
 Thermoactinomyces vulgaris R-47 .alpha.-amylase 2 (TVAII). X-ray structure
 of the mutant E354A complexed with .beta.-cyclodextrin, and kinetic
 analyses on cyclodextrins
 AU Kondo, Shin; Ohtaki, Akashi; Tonozuka, Takashi; Sakano, Yoshiyuki;
 Kamitori, Shigehiro
 CS Department of Biotechnology & Life Science, Tokyo University of
 Agriculture and Technology, Tokyo, 184-8588, Japan
 SO Journal of Biochemistry (Tokyo, Japan) (2001), 129(3), 423-428
 CODEN: JOBIAO; ISSN: 0021-924X
 PB Japanese Biochemical Society
 DT Journal
 LA English
 RE.CNT 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 12 OF 37 HCAPLUS COPYRIGHT 2004 ACS on STN
 AN 2001:925294 HCAPLUS
 DN 136:382121
 TI Mutations of barley .beta.-amylase that improve substrate-binding affinity
 and thermostability
 AU Ma, Y. F.; Evans, D. E.; Logue, S. J.; Langridge, P.
 CS Division of Human Immunology, Hanson Center for Cancer Research, IMVS,
 Adelaide, 5000, Australia
 SO Molecular Genetics and Genomics (2001), 266(3), 345-352
 CODEN: MGG0AA; ISSN: 1617-4615
 PB Springer-Verlag
 DT Journal
 LA English
 RE.CNT 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 13 OF 37 HCAPLUS COPYRIGHT 2004 ACS on STN
 AN 2001:629203 HCAPLUS
 DN 135:354619
 TI Role of Phe286 in the recognition mechanism of cyclomaltooligosaccharides
 (cyclodextrins) by Thermoactinomyces vulgaris R-47 .alpha.-amylase 2
 (TVAII). X-ray structures of the mutant TVAIIs, F286A and F286Y, and
 kinetic analyses of the Phe286-replaced mutant TVAIIs
 AU Ohtaki, A.; Kondo, S.; Shimura, Y.; Tonozuka, T.; Sakano, Y.; Kamitori, S.
 CS Department of Biotechnology and Life Science, Tokyo University of
 Agriculture and Technology, Faculty of Technology, Tokyo, Koganei,
 184-8588, Japan

SO Carbohydrate Research (2001), 334(4), 309-313
 CODEN: CRBRAT; ISSN: 0008-6215
 PB Elsevier Science Ltd.
 DT Journal
 LA English
 RE.CNT 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 14 OF 37 HCAPLUS COPYRIGHT 2004 ACS on STN
 AN 2000:725751 HCAPLUS
 DN 133:292888
 TI .alpha.-Amylase variants with improved specificity and/or specific
 activity
 IN Andersen, Carsten; Jorgensen, Christel Thea; Bisgard-Frantzen, Henrik;
 Svendsen, Allan; Kjaerulff, Soren
 PA Novo Nordisk A/S, Den.
 SO PCT Int. Appl., 78 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000060059	A2	20001012	WO 2000-DK148	20000328
	WO 2000060059	A3	20010510		
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
	BR 2000009362	A	20011226	BR 2000-9362	20000328
	EP 1165762	A2	20020102	EP 2000-912415	20000328
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO			
	JP 2002540785	T2	20021203	JP 2000-609551	20000328
	US 6410295	B1	20020625	US 2000-537168	20000329
	US 2003044954	A1	20030306	US 2002-146327	20020515
PRAI	DK 1999-437	A	19990330		
	US 1999-127427P	P	19990401		
	WO 2000-DK148	W	20000328		
	US 2000-537168	A3	20000329		

L3 ANSWER 15 OF 37 HCAPLUS COPYRIGHT 2004 ACS on STN
 AN 2000:891507 HCAPLUS
 DN 134:53137
 TI Maltogenic .alpha.-amylase three-dimensional structure and its use for the
 construction of variants with improved properties
 IN Cherry, Joel; Vendsen, Allan; Andersen, Carsten; Beier, Lars; Frandsen,
 Torben Peter
 PA Novo Nordisk A/s, Den.
 SO U.S., 97 pp., Cont.-in-part of U.S. Ser. No. 77,795.
 CODEN: USXXAM
 DT Patent
 LA English
 FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6162628	A	20001219	US 1999-386607	19990831
	WO 9943794	A1	19990902	WO 1999-DK88	19990226
	W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
	TR 200002498	T2	20001121	TR 2000-200002498	19990226
PRAI	DK 1998-269	A	19980227		
	US 1998-77795P	P	19980312		
	WO 1999-DK88	A2	19990226		

RE.CNT 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 16 OF 37 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 2001:151979 BIOSIS
DN PREV200100151979
TI Selection and characterization of a high alpha-amylase-producing variant
in glucose-limited continuous cultures of *Aspergillus oryzae*.
AU Zangirolami, Teresa C.; Carlsen, Morten; Nielsen, Jens [Reprint author];
Jorgensen, Sten Bay
CS CPB, Department of Biotechnology, Technical University of Denmark, Lyngby,
2800, Denmark
jn@ibt.dtu.dk
SO Mycological Research, (October, 2000) Vol. 104, No. 10, pp. 1241-1249.
print.
CODEN: MYCRER. ISSN: 0953-7562.
DT Article
LA English
ED Entered STN: 28 Mar 2001
Last Updated on STN: 15 Feb 2002

L3 ANSWER 17 OF 37 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2000:806067 HCAPLUS
DN 133:331218
TI Structure of .beta.-amylase: X-ray crystallographic analysis
AU Mikami, Bunzo
CS Research Institute for Food Science, Kyoto University, Uji, 611-0011,
Japan
SO Glycoenzymes (2000), 55-81. Editor(s): Ohnishi, Masatake. Publisher:
Japan Scientific Societies Press, Tokyo, Japan.
CODEN: 69AQDK
DT Conference; General Review
LA English

RE.CNT 60 THERE ARE 60 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 18 OF 37 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1999:566161 HCAPLUS
DN 131:181666
TI Maltogenic .alpha.-amylase variants with altered properties
IN Cherry, Joel Robert; Svendsen, Allan; Andersen, Carsten; Beier, Lars;
Frandsen, Torben Peter
PA Novo Nordisk A/S, Den.
SO PCT Int. Appl., 146 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9943794	A1	19990902	WO 1999-DK88	19990226
	W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
	CA 2321595	AA	19990902	CA 1999-2321595	19990226
	AU 9925129	A1	19990915	AU 1999-25129	19990226
	AU 757935	B2	20030313		
	BR 9908281	A	20001031	BR 1999-8281	19990226
	TR 200002498	T2	20001121	TR 2000-200002498	19990226
	EP 1058724	A1	20001213	EP 1999-904736	19990226
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, FI			
	NZ 505820	A	20021025	NZ 1999-505820	19990226
	JP 2003521866	T2	20030722	JP 2000-533534	19990226
	US 6162628	A	20001219	US 1999-386607	19990831
PRAI	DK 1998-269	A	19980227		
	US 1998-77795P	P	19980312		
	WO 1999-DK88	W	19990226		

RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 19 OF 37 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
 AN 2001:102134 BIOSIS
 DN PREV200100102134
 TI Roles of catalytic residues in alpha-amylases as evidenced by the
 structure analyses of the product-complexes ***mutant***
 maltotetraose-forming ***amylases*** .
 AU Matsuura, Yoshiki [Reprint author]; Hasegawa, Kazuya; Kubota, Michio
 CS Institute for Protein Research, Osaka University, Suita, Osaka, 565-0871,
 Japan
 SO Gilbert, H. J.; Davies, G. J.; Henrissat, B.; Svenson, B. Spec. Publ. - R.
 Soc. Chem., (1999) pp. 159-164. Royal Society of Chemistry Special
 Publication. Recent advances in carbohydrate bioengineering. print.
 Publisher: Royal Society of Chemistry, Thomas Graham House, Science Park,
 Milton Road, Cambridge, CB4 4WF, UK. Series: Royal Society of Chemistry
 Special Publication.
 Meeting Info.: 3rd Carbohydrate Bioengineering Meeting. Newcastle Upon
 Tyne, England, UK. April 11-14, 1999.
 CODEN: SROCD0. ISSN: 0260-6291. ISBN: 0-85404-774-3 (cloth).
 DT Book
 Conference; (Meeting)
 Book; (Book Chapter)
 Conference; (Meeting Paper)
 LA English
 ED Entered STN: 28 Feb 2001
 Last Updated on STN: 15 Feb 2002

L3 ANSWER 20 OF 37 MEDLINE on STN DUPLICATE 4
 AN 1999141375 MEDLINE
 DN PubMed ID: 9918723
 TI The crystal ***structure*** of the sevenfold ***mutant*** of
 barley beta- ***amylase*** with increased thermostability at 2.5 A
 resolution.
 AU Mikami B; Yoon H J; Yoshigi N
 CS Kyoto University, Uji, Kyoto, 611, Japan.. mikami@soya.food.kyoto-u.ac.jp
 SO Journal of molecular biology, (1999 Jan 22) 285 (3) 1235-43.
 Journal code: 2985088R. ISSN: 0022-2836.
 CY ENGLAND: United Kingdom
 DT Journal; Article; (JOURNAL ARTICLE)
 LA English
 FS Priority Journals
 OS PDB-1BLY
 EM 199903
 ED Entered STN: 19990326
 Last Updated on STN: 19990326
 Entered Medline: 19990318

=> d 21-30

L3 ANSWER 21 OF 37 MEDLINE on STN DUPLICATE 5
 AN 2000027472 MEDLINE
 DN PubMed ID: 10556241
 TI Roles of catalytic residues in alpha-amylases as evidenced by the
 structures of the product-complexed ***mutants*** of a
 maltotetraose-forming ***amylase*** .
 AU Hasegawa K; Kubota M; Matsuura Y
 CS Institute for Protein Research, Osaka University, Suita, Osaka 565-0871,
 Japan.
 SO Protein engineering, (1999 Oct) 12 (10) 819-24.
 Journal code: 8801484. ISSN: 0269-2139.
 CY ENGLAND: United Kingdom
 DT Journal; Article; (JOURNAL ARTICLE)
 LA English
 FS Priority Journals
 EM 200001
 ED Entered STN: 20000124
 Last Updated on STN: 20000124
 Entered Medline: 20000112

L3 ANSWER 22 OF 37 MEDLINE on STN DUPLICATE 6
 AN 2000037402 MEDLINE
 DN PubMed ID: 10570812
 TI Isolation of key amino acid residues at the N-terminal end of the core
 region Streptococcus downei glucansucrase, GTF-I.
 AU Monchois V; Vignon M; Russell R R
 CS Department of Oral Biology, Dental School, University of Newcastle upon

SO Tyne, UK.: vincent.monchois@ncl.ac.uk
Applied microbiology and biotechnology, (1999 Nov) 52 (5) 660-5.
Journal code: 8406612. ISSN: 0175-7598.
CY GERMANY: Germany, Federal Republic of
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199912
ED Entered STN: 20000113
Last Updated on STN: 20020420
Entered Medline: 19991209

L3 ANSWER 23 OF 37 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2000:29422 HCAPLUS
DN 132:177272
TI Roles of catalytic residues in .alpha.-amylases as evidenced by the
structure analyses of the product-complexed ***mutant***
maltotetraose-forming ***amylases***
AU Matsuura, Yoshiki; Hasegawa, Kazuya; Kubota, Michio
CS Institute for Protein Research, Osaka University, Suita, 565-0871, Japan
SO Special Publication - Royal Society of Chemistry (1999), 246(Recent
Advances in Carbohydrate Bioengineering), 159-164
CODEN: SROCD0; ISSN: 0260-6291
PB Royal Society of Chemistry
DT Journal; General Review
LA English
RE.CNT 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 24 OF 37 MEDLINE on STN DUPLICATE 7
AN 1998181035 MEDLINE
DN PubMed ID: 9514750
TI Crystal ***structure*** of a catalytic-site ***mutant*** alpha-
amylase from Bacillus subtilis complexed with maltopentaose.
AU Fujimoto Z; Takase K; Doui N; Momma M; Matsumoto T; Mizuno H
CS Department of Biotechnology, National Institute of Agrobiological
Resources, Tsukuba, Ibaraki, Japan.
SO Journal of molecular biology, (1998 Mar 27) 277 (2) 393-407.
Journal code: 2985088R. ISSN: 0022-2836.
CY ENGLAND: United Kingdom
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199806
ED Entered STN: 19980611
Last Updated on STN: 20000303
Entered Medline: 19980602

L3 ANSWER 25 OF 37 MEDLINE on STN DUPLICATE 8
AN 97428332 MEDLINE
DN PubMed ID: 9281429
TI Crystal ***structures*** of a ***mutant*** maltotetraose-forming
exo- ***amylase*** cocrystallized with maltopentaose.
AU Yoshioka Y; Hasegawa K; Matsuura Y; Katsube Y; Kubota M
CS Institute for Protein Research, Osaka University, Osaka, Suita, 565,
Japan.
SO Journal of molecular biology, (1997 Aug 29) 271 (4) 619-28.
Journal code: 2985088R. ISSN: 0022-2836.
CY ENGLAND: United Kingdom
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199710
ED Entered STN: 19971021
Last Updated on STN: 19971021
Entered Medline: 19971003

L3 ANSWER 26 OF 37 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1996:485504 HCAPLUS
DN 125:188962
TI Role of the C-terminal region of .beta.-amylase from barley and additivity
of mutational effects of intragenic amino acid replacements on the
thermostability of .beta.-amylase
AU Yoshigi, Naohiro; Okada, Yukio; Maeba, Hideo; Sahara, Hirohisa; Tamaki,
Teruo
CS Brew. Res. Lab., Sapporo Brew. Ltd., Yaizu, 425, Japan

SO Oyo Toshitsu Kagaku (1996), 43(2), 227-235
CODEN: OTKAE3; ISSN: 1340-3494
PB Nippon Oyo Toshitsu Kagakkai
DT Journal; General Review
LA English

L3 ANSWER 27 OF 37 MEDLINE on STN DUPLICATE 9
AN 96410783 MEDLINE
DN PubMed ID: 8812863
TI Overexpression, purification, and characterization of recombinant barley
alpha-amylases 1 and 2 secreted by the methylotrophic yeast Pichia
pastoris.
AU Juge N; Andersen J S; Tull D; Roepstorff P; Svensson B
CS Department of Chemistry, Carlsberg Laboratory, Gamle Carlsberg Vej 10,
Copenhagen Valby, DK-2500, Denmark.
SO Protein expression and purification, (1996 Sep) 8 (2) 204-14.
Journal code: 9101496. ISSN: 1046-5928.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199612
ED Entered STN: 19970128
Last Updated on STN: 19970128
Entered Medline: 19961203

L3 ANSWER 28 OF 37 MEDLINE on STN DUPLICATE 10
AN 94192666 MEDLINE
DN PubMed ID: 8143730
TI The nuclear-magnetic-resonance solution ***structure*** of the
mutant alpha- ***amylase*** inhibitor [R19L] Tendamistat and
comparison with wild-type Tendamistat.
AU O'Connell J F; Bender R; Engels J W; Koller K P; Scharf M; Wuthrich K
CS Institut fur Molekularbiologie und Biophysik, Eidgenossische Technische
Hochschule Honggerberg, Zurich, Switzerland.
SO European journal of biochemistry / FEBS, (1994 Mar 15) 220 (3) 763-70.
Journal code: 0107600. ISSN: 0014-2956.
CY GERMANY: Germany, Federal Republic of
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199404
ED Entered STN: 19940511
Last Updated on STN: 19940511
Entered Medline: 19940429

L3 ANSWER 29 OF 37 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN
AN 94:136839 SCISEARCH
GA The Genuine Article (R) Number: MY954
TI THE SUBSITE ***STRUCTURE*** OF A YEAST ALPHA- ***AMYLASE*** AND A
MUTANT ENZYME WITH ENHANCED ACTIVITY FOR SHORT SUBSTRATES
AU MATSUI I (Reprint)
CS NATL INST BIOSCI & HUMAN TECHNOL, TSUKUBA, IBARAKI 305, JAPAN
CYA JAPAN
SO ABSTRACTS OF PAPERS OF THE AMERICAN CHEMICAL SOCIETY, (13 MAR 1994) Vol.
207, Part 1, pp. 40-AGFD.
ISSN: 0065-7727.
DT Conference; Journal
LA ENGLISH
REC No References

L3 ANSWER 30 OF 37 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
AN 1994-06450 BIOTECHDS
TI The subsite ***structure*** of a yeast alpha- ***amylase*** and a
mutant enzyme with enhanced activity for short substrates;
Saccharomycopsis fibuligera alpha-amylase site-directed mutagenesis
for enzyme engineering resulting in improved hydrolysis activity
(conference abstract)
AU Matsui I
CS Nat.Inst.Biosci.Human-Technol.
LO National Institute of Bioscience and Human Technology, Tsukuba, Ibaraki
305, Japan.
SO Abstr.Pap.Am.Chem.Soc.; (1994) 207 Meet., Pt.1, AGFD40
CODEN: ACSRAL
DT Journal
LA English

=> d 31-37

L3 ANSWER 31 OF 37 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1993:642285 HCAPLUS

DN 119:242285

TI Construction of a model secretion system for oral streptococci

AU Shiroza, Teruaki; Kuramitsu, Howard K.

CS Health Sci. Cent., Univ. Texas, San Antonio, TX, 78284-7888, USA

SO Infection and Immunity (1993), 61(9), 3745-55

CODEN: INFIBR; ISSN: 0019-9567

DT Journal

LA English

L3 ANSWER 32 OF 37 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1994:100436 HCAPLUS

DN 120:100436

TI Crystallization and preliminary x-ray studies of wild type and catalytic-site mutant .alpha.-amylase from Bacillus subtilis

AU Mizuno, Hiroshi; Morimoto, Yukio; Tsukihara, Tomitake; Matsumoto, Takashi;

Takase, Kenji

CS Dep. Mol. Biol., Natl. Inst. Agrobiol. Resour., Tsukuba, 305, Japan

SO Journal of Molecular Biology (1993), 234(4), 1282-3

CODEN: JMOBAK; ISSN: 0022-2836

DT Journal

LA English

L3 ANSWER 33 OF 37 LIFESCI COPYRIGHT 2004 CSA on STN DUPLICATE 12

AN 90:15229 LIFESCI

TI Random mutagenesis used to probe the structure and function of Bacillus stearothermophilus alpha-amylase.

AU Holm, L.; Koivula, A.K.; Lehtovaara, P.M.; Hemminki, A.; Knowles, J.K.C.

CS Biotech. Lab., VTT, Tieotie 2, SF-02150 Espoo, Finland

SO PROTEIN ENG., (1990) vol. 3, no. 3, pp. 181-191.

DT Journal

FS J; L

LA English

SL English

L3 ANSWER 34 OF 37 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1989:133575 HCAPLUS

DN 110:133575

TI Amylase activity and L-phenylalanine overproduction from starch by an analog resistant mutant of Bacillus polymyxa

AU Shetty, K.; Crawford, D. L.; Korus, R. A.; Pometto, A. L., III

CS Dep. Bacteriol., Univ. Idaho, Moscow, ID, 83843, USA

SO Applied Biochemistry and Biotechnology (1988), 17, 347-55

CODEN: ABIBDL; ISSN: 0273-2289

DT Journal

LA English

L3 ANSWER 35 OF 37 MEDLINE on STN

DUPLICATE 13

AN 88082785 MEDLINE

DN PubMed ID: 2446870

TI Primary ***structure*** and differential expression of beta-***amylase*** in normal and ***mutant*** barleys.

AU Kreis M; Williamson M; Buxton B; Pywell J; Hejgaard J; Svendsen I

CS Agricultural and Fisheries Research Council, Rothamsted Experimental Station, Harpenden, England.

SO European journal of biochemistry / FEBS, (1987 Dec 15) 169 (3) 517-25.

Journal code: 0107600. ISSN: 0014-2956.

CY GERMANY, WEST: Germany, Federal Republic of

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 198802

ED Entered STN: 19900305

Last Updated on STN: 19900305

Entered Medline: 19880218

L3 ANSWER 36 OF 37 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN

AN 88:3936 SCISEARCH

GA The Genuine Article (R) Number: L4320

TI PRIMARY ***STRUCTURE*** AND DIFFERENTIAL EXPRESSION OF BETA-***AMYLASE*** IN NORMAL AND ***MUTANT*** BARLEYS

AU KREIS M (Reprint); WILLIAMSON M; BUXTON B; PYWELL J; HEJGAARD J; SVENDSEN
I
CS ROTHAMSTED EXPTL STN, INST ARABLE CROP RES, ARG & FISHERIES RES COUNCIL,
DEPT BIOCHEM, HARPENDEN AL5 2JQ, HERTS, ENGLAND (Reprint); TECH UNIV
DENMARK, DEPT BIOCHEM & NUTR, DK-2800 LYNGBY, DENMARK; CARLSBERG LAB, DEPT
CHEM, DK-2500 COPENHAGEN, DENMARK
CYA ENGLAND; DENMARK
SO EUROPEAN JOURNAL OF BIOCHEMISTRY, (1987) Vol. 169, No. 3, pp. 517-525.
DT Article; Journal
FS LIFE
LA ENGLISH
REC Reference Count: 46

L3 ANSWER 37 OF 37 MEDLINE on STN DUPLICATE 14
AN 83140754 MEDLINE
DN PubMed ID: 6186886
TI Kallikrein and ***amylase*** contents in tissues from a ***mutant***
mouse ***model*** for human cystic fibrosis.
AU Catanzaro O L; Vaccaro M I; Vila S B; Martinez Seeber A L; Pivetta O H
SO Life sciences, (1983 Feb 21) 32 (8) 825-31.
Journal code: 0375521. ISSN: 0024-3205.
CY ENGLAND: United Kingdom
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 198304
ED Entered STN: 19900318
Last Updated on STN: 20000303
Entered Medline: 19830415

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(FILE 'HOME' ENTERED AT 19:27:45 ON 20 MAY 2004)

FILE 'MEDLINE, SCISEARCH, LIFESCI, BIOTECHDS, BIOSIS, EMBASE, HCAPLUS,
NTIS, ESBIODBASE, BIOTECHNO, WPIDS' ENTERED AT 19:27:57 ON 20 MAY 2004
L1 2433 S AMYLASE (5A)(MUTA? OR VARIANT)
L2 107 S L1 (5A)(MODEL OR STRUCTURE)
L3 37 DUP REM L2 (70 DUPLICATES REMOVED)

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